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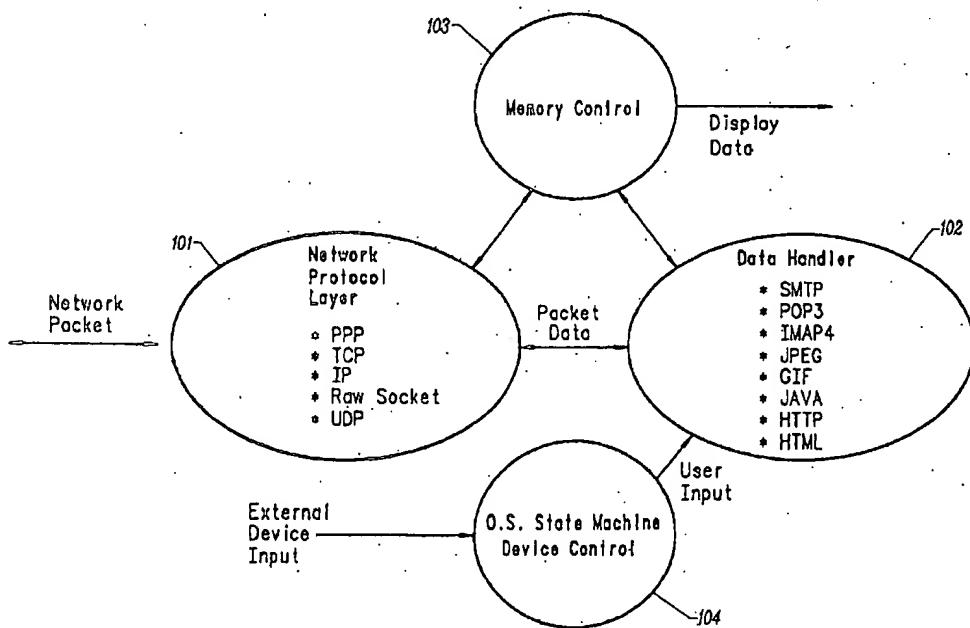
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(54) Title: GIGABIT ETHERNET ADAPTER



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(57) Abstract: An apparatus for decoding and encoding network protocols and processing data, consists of a network stack (101) for receiving and transmitting packets and for encoding and decoding the packets, and a plurality of dedicated hardwired logic protocol modules (102, 103 and 104), each being optimized for a specific network protocol, wherein the protocol modules (102, 103 and 104) execute in parallel.

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*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/12889

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : H04J 3/22; G06F 13/00; G06F 15/16  
 US CL : 370/352, 390, 392, 465, 469; 709/225, 229; 710/20, 62; 714/798

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
 U.S. : Please See Continuation Sheet

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,046,980 A (PACKER) 04 April 2000, see col. 7, line 31 to col. 11, line 7.	1-94
Y	US 5,163,131 A (ROW et al) 10 November 1992, see abstract, col. 8, line 19 to col. 12, line 33.	1-94
Y, P	US 6,233,626 B1 (SWALES et al) 15 May 2001, see col. 1, line 57 to col. 3, line 10, col. 3, line 45 to col. 6, line 13.	1-94
A	US 5,636,371 A (YU) 03 June 1997, see entire document.	1-94
A	US 5,802,306 A (HUNT) 01 September 1998, see entire document.	1-94
A	US 6,185,619 B1 (JOFFE et al) 06 February 2001, see entire document.	1-94

Further documents are listed in the continuation of Box C.

See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier application or patent published on or after the international filing date	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&"	document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means		
"P" document published prior to the international filing date but later than the priority date claimed		

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**Continuation of B. FIELDS SEARCHED Item 1:**

370/352, 389, 390, 392, 465, 466, 467, 469; 709/201, 223, 225, 226, 227, 229; 710/7, 20, 29, 36, 39, 40, 62; 714/746, 748, 749, 798

**Continuation of B. FIELDS SEARCHED Item 3:**

EAST search terms: Ethernet adj2 adapter; network, protocol, modules, (stack or interface), TCP, IP, (ARP or RARP), ICMP, IGMP